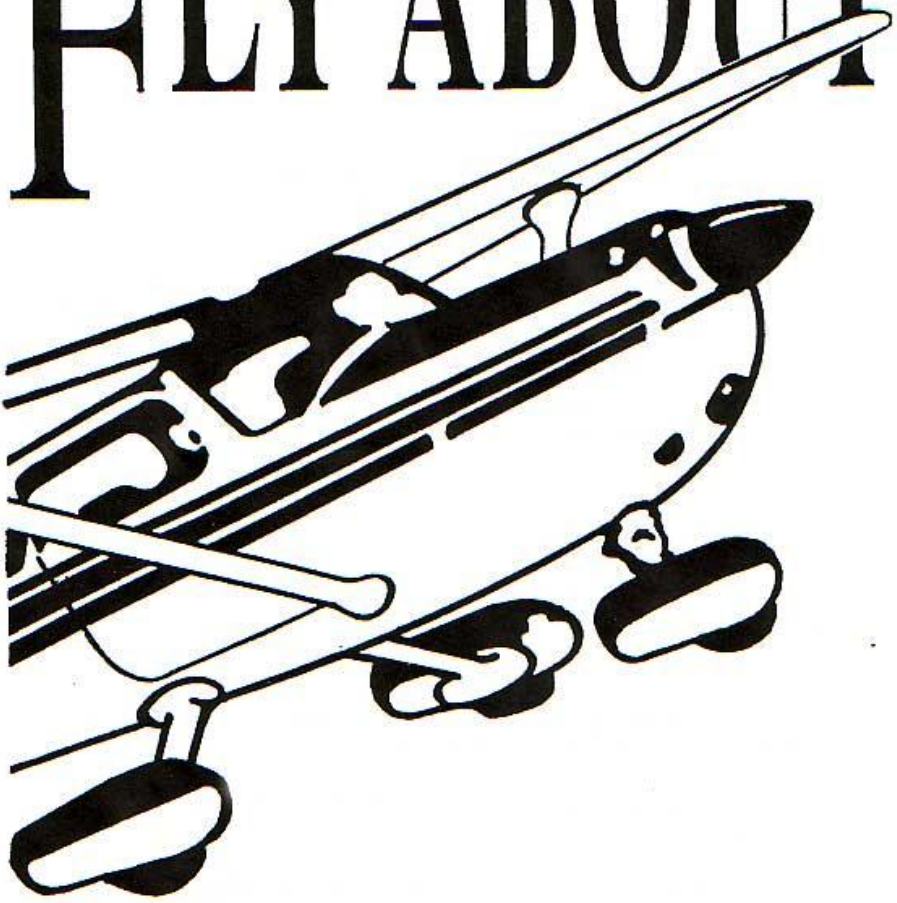
# FLY ABOUT



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NORTHAM AERO CLUB

# PO BOX 247 NORTHAM WA 6401

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# Club Captains Report

Search and Locate Flying Competition

NAC's 14th October search and rescue competition was organised and run by Denis, Claude and Geoff Way.
A big thanks to everyone who helped and an extra big thanks to Geoff Way. Geoff manned the broken down vehicle we were meant to find but because he was too far out of the Way (he,he), not one pilot found him.
Lucky for Geoff he got his car going and drove back to the club house himself.
The competition showed all 5 pilots that the obvious is not always the correct call. We all thought we obviously saw the broken down car, made the call and turned for home. Only we made the wrong call.
Thanks again guys, a lot was learnt from the debrief afterwards.
Thanks Les for cooking the bbq.

Please note that next competition is flying to the Royals at Murray Field.

**Coming Events** –
Wave Rock Fly In
W.A.L.A.C
Gingin Fly In has been rescheduled due to a cancellation this month
Morawa Fly In again to check out a mine site due to there being no wild flowers.

I will once again organise these so if you are interested please contact me.

Cheers and Happy Landings!
Errol

***VH-BFC, In Cessna Aerobat Livery, on a recent visit to Northam from RACWA.***

# Club Competition

Competition 14th October

This month's comp was designed to practice navigation, communication and observation skills in addition to flying the aeroplane. Pilots were given an instruction sheet that required them to plot a location on their map and fly to that point.
From there a radio call to Grass Valley Ground gave them a bearing and a distance to fly to find a broken down car. They then had to answer a series of questions on the car and return to base.
Their landings were rated to allow a result in the event of a tie.
All pilots and their observers found it harder than they expected to find a lost car with nobody finding it, complicated by cloudy weather not allowing the driver to use his signal mirror to attract the aircrafts attention.
With nobody finding the car the comp came down to the landing; the results being

First: Noel Williams

Second: Ashley Smith

Equal Third: Bruce Rowley and Errol Croft

Fourth: Ray Howell

We finished the exercise with a short talk on 'Why things are seen'

A good time had by all and some lessons to add to their experience bank Thanks to Grass Valley Ground Claude Meunier and to the lost car driver Geoff Way who had to find his own way home.

Happy Flying Denis Beresford

Australian Government
Bureau of Meteorology

WEATHER ADVICE FOR YOUR SAFETY

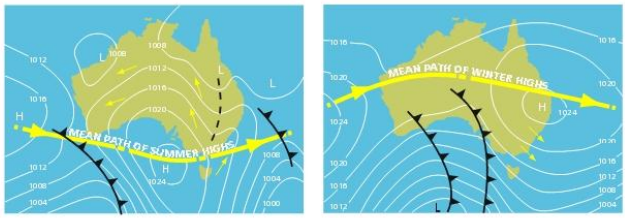
# Flying the Southwest

This pamphlet provides an overview of the weather over southwest Australia (defined as south of latitude 23.5°S and west of longitude 135°E), particularly as it affects aviation.

**Weather-wise pilots keep in touch with the current and expected weather patterns by:**

- **obtaining the latest aviation observations, forecasts, warnings and charts from the briefing system listed at the end of this pamphlet,**
- **telephoning the Bureau of Meteorology for elaborative briefing, when appropriate, and**
- **paying attention to media weather presentations and reports.**

**Pilots also benefit from understanding the characteristics of particular weather situations and systems which affect the area in which they operate. This pamphlet discusses some of the hazardous weather elements and situations that may be experienced in southwest Australia from an aviation perspective.**




Average MSLP in January (left) and July (right).

## General Climate

The climate of southwest Australia is largely of Mediterranean type with mostly cool wet winters and warm to hot dry summers; although inland towards central Australia, the climate becomes semi-arid to arid. It is useful to consider flying conditions from a 'winter' (May to September) and a 'summer' (November to March) perspective. There is a transitional period between the two seasons, with October and April being the transition months.

### Summer

Summer, with its long periods of clear skies, presents the best flying conditions, however hazards may be present in the form of:

- thunderstorms
- tropical cyclones (occasionally)
- mechanical turbulence
- dust storms
- low cloud (occasionally), particularly coastal.

### Winter

Adverse flying conditions in winter are usually associated with one of the following systems:

- orographic lifting of low-level moist air by the terrain leading to extensive low cloud
- cold fronts
- fog, particularly on the days following the passage of a cold front

FURTHER INFORMATION
Aviation Weather Services
Visit us at www.bom.gov.au

- cut-off lows
- cloud bands
- localised convergence of moist air near the coast, giving rise to low cloud and drizzle.

## Significant Weather Systems

### Orographic Lifting

Any moist low-level airflow over gradually rising ground usually causes extensive low cloud to develop. A relatively frequent example of this occurs over the Goldfields area in the early mornings when a high-pressure ridge moves into the Great Australian Bight. The low-level moist southeasterly rising over the terrain can result in low cloud which often persists well into the day.

### Cold Fronts

Cold fronts usually bring adverse flying conditions in the form of:

- reduced visibility in rain and lowered cloud base
- thunderstorms, possibly with hail, either along the front or in the cold unstable southerly air that follows the frontal passage
- tornadoes may occur (infrequently) with thunderstorms associated with particularly vigorous fronts
- strong winds, both pre and post-frontal
- radiation fog often occurs in the clearing skies and moderating winds after frontal rain.

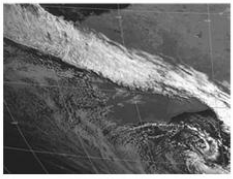
Each frontal system is somewhat unique with respect to the cloud and weather pattern. Consequently the forecasts and warnings must be scrutinised carefully to determine the pattern of a particular front. Satellite pictures provide, with limitations, a pictorial representation of the cloud distribution – take care though, as high clouds sensed by the satellite may mask low cloud.

### Cut-off Lows

Occasionally during the cooler months, large, deep, slow moving low-pressure systems may become cut-off from the westerly flow further southwards. Cut-off lows are usually associated with strong winds, extensive rain and thunderstorms. Such systems may dominate weather conditions in the area for several days.

### Northwest Cloud Band

Cloud bands can develop great vertical and horizontal extent, resulting in non-VMC conditions with rain, low cloud, fog and even embedded thunderstorms.

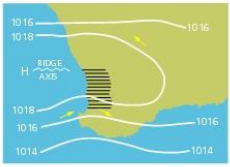


One particularly significant weather system that affects safe flight mainly over the northern and eastern parts of southwest Australia is the northwest cloud band which usually first appears to the northwest of Australia and extends for several thousands of kilometres towards the southeast. The cloud forms when warm, moist tropical air moves poleward in the middle levels of the atmosphere, and rises gradually. Usually light rain falls initially, and as the intensity increases, the cloud base lowers and the visibility deteriorates.

A fully developed northwest cloud band presents very bad flying conditions because:

- cloud cover may extend for thousands of kilometres in the east-west direction, though generally less in the north-south direction
- cloud is often unbroken from low levels to about 20 000 feet. Once a VFR pilot is inadvertently caught in cloud, there may be little opportunity to escape
- below minima conditions may persist for many hours or even days
- fog frequently forms following the passage of the cloud band, in areas where there has been extensive rainfall.

Fully active northwest cloud bands usually occur at least twice a year, but their frequency may be greater in some years. Cloud bands which are relatively weaker and of more limited extent occur much more frequently. They may occur in any month but are most likely to develop in the cooler months of the year. They are readily discernible on satellite images.

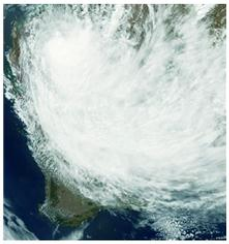



A localised MSL analysis showing the area likely to be affected by low cloud produced by coastal convergence

### Coastal Convergence

This term is used to describe the mechanism by which a narrow zone of low cloud and poor visibility in association with rain or drizzle persists for several hours near the coast.

The cloud zone, which roughly parallels the coast, forms due to convergence between an onshore flow (associated with the pressure pattern) and an off-shore flow that develops overnight, due primarily to local land-sea temperature contrasts. The cloud zone generally forms after sunrise and clears later in the morning as temperatures rise. It forms only in weak onshore airstreams, usually over land and south of the high pressure ridge axis. The cloud base is typically below 1000 feet and cloud top typically about 7000 feet. The lower west coast from Lancelin to Bunbury is particularly prone to this weather situation.



Tropical Cyclone Emma, February 2006, courtesy of NASA

### Tropical Cyclones

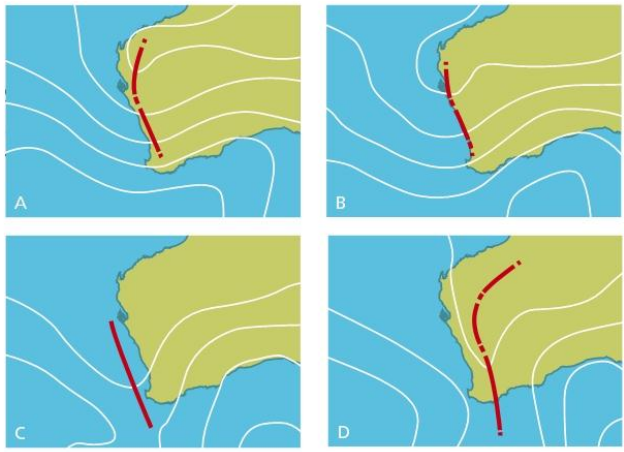
About once in every five years, a tropical cyclone moves very rapidly towards southwest Australia. Although many of the typical cloud features of the cyclone have dissipated by the time the cyclone reaches the area, gale-force winds prevail in association with a very deep low. The gale-force winds frequently cause blinding duststorms, particularly to the north of the cyclone track. Very heavy rain may occur to the south of the cyclone.

Tropical cyclones which move rapidly towards southwest Australia (and retain their gale-force winds) are most likely to be experienced in late summer or early autumn. This type of situation is very hazardous to aviation and should be avoided at all costs.

## Hazardous Phenomena

### Low Cloud

Low cloud can occur at any time of the year in the southwest. However it is particularly problematic on the west coast in the summer months when the west coast trough moves from inland to just offshore before moving inland again. In this type of weather situation, hot and dry continental air moves offshore and absorbs moisture from the ocean. When the trough moves inland again, the low level moist air is cooled as it rises over the terrain. As this air is likely to be trapped under hot air aloft, the cooling may lead to saturation of the lower air and subsequent formation of hazardous low cloud.




MSL analysis chart sequence showing the west coast trough moving offshore and then moving onshore again, bringing moisture from the ocean to the land.

## Fog

The occurrence of fog follows a seasonal trend, being much less likely in summer than in winter and the transition months. Radiation fogs are common inland in winter when the sub-tropical ridge lies over the south of the state resulting in clear skies and light winds. These fogs are usually isolated and they dissipate by mid-morning. More widespread fogs tend to form in the wake of cold fronts when rapid ridging behind the front forms a temperature inversion which traps the moisture from the earlier rainfall. The west coast trough can also produce fog about the coastal plain as it moves inland, advecting moist maritime air. There have been isolated instances of this occurring as a sea fog during the day.

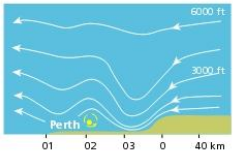
## Thunderstorms

Thunderstorms occur mainly in the warmer months, except in the far southwest where winter thunderstorms associated with cold fronts are most frequent.

Thunderstorms often form along the west coast trough which develops in the summer months.

Summer thunderstorms are often high-based but nevertheless can cause severe effects near the ground in the form of downdraughts, gust fronts, locally raised dust and hail. Microbursts may also be present.

## Low-level Turbulence




A schematic diagram showing disturbed flow and rotor formation between the Darling Scarp and the coast

Turbulence may develop with strong low-level winds especially when the terrain is elevated or there are sharp topographical features (e.g. escarpments). A particularly dangerous area for turbulence is the Darling Scarp and the adjacent coastal plain; this is especially the case when strong low-level easterly flows prevail overnight and in the morning. Rotors may form in these conditions, with wind speed and direction changing greatly over short distances, particularly in the east-west direction. Airports that may be affected include Perth, Pearce and Jandakot.

When the surface pressure pattern indicates a moderate to strong easterly flow, airfields west of the Scarp are prone to strong wind gusts. Wherever possible in these circumstances, parked aircraft should be securely moored or moved to hangers. Such situations are most common in summertime but can occur at any time of year when the appropriate conditions prevail.

## Duststorms

Dust storm in the town of Sandstone, Western Australia. Photo by Janene Denny

Duststorms seriously reduce atmospheric visibility, and the large quantities of dust raised into suspension are potentially damaging to aircraft engines. Most duststorms occur in summer months although they have been observed at all times of year. They occur throughout much of the southwest, with the highest incidence along the Nullarbor Plain and the Great Victoria Desert. There is a tendency towards multiple occurrences of duststorms when there has been a prolonged dry spell. Pilots should be conscious that duststorms are much more likely in drought years, and should report any incipient or developed duststorms in a special AIREP, particularly in remote areas (where observations are sparse).



Australian Government
Bureau of Meteorology

Airservices Australia is the official distributor of aviation forecasts, warnings and observations issued by the Bureau of Meteorology. Flight briefing services are available at: www.airservicesaustralia.com. Telephone contact details for elaborative briefings are contained in Airservices' *Aeronautical Information Publication Australia* (AIP), which is available online through their website.

The Australian Bureau of Meteorology provides a wide range of observations, synoptic charts, satellite and radar images, forecast and warnings via the internet at www.bom.gov.au.

# ***The Social Pages***

Jurien Bay Fly-in 6th October 2012

We flew out of Northam Aero Club in the Suzy Marie at 8.55am and the weather was just picking up to a fresh cross wind of about 25 degrees or so the windsock showed. The maximum ground speed we managed was 84 on the way up and we picked up the tail wind on the way back increasing that to 134. The sight of Jurien Bay is breathtaking from the air and very easy to see why anyone would want to spend every holiday just basking in those surrounds. The locals were very friendly and Peter from the local Skydive business had arranged transport for all the out of towners to get to the beach and their accommodation only 1 kilometre away.

Jurien Bay has come a long way and is being developed into a very pretty tourist town with new residential development and an envious industrial area that is bringing new families to the area at a growing rate. Peter tells us that the local bank manager is very friendly and behind all the local businesses. We watched groups of sky divers land safely on the beach and it seems that there is a continuous stream of avid enthusiasts from Perth that make the journey and it certainly is worthwhile.

Competition for the day was takeoff and landing from aircraft carrier measuring 220 metres exactly. Judges were provided with an array of exercises in the air as well to test the pilots knowledge.. There were a large number of successful takeoffs but no one managed to dead stop land at the appropriate marker so instead of automatically disqualifying everyone from the event we decided it would be better to remove that portion of the competition and work out who was the next best.

Rob from Royals Aero Club won the event with 160 and our own Errol Croft came in second with 155 points.

Participants on the day were many – most of the Royals were staying up at Jurien Bay and the Midwest were in town for practice of the Aerobatics they are famous for in their Decathlons. Northam Aero Club pilots had to get home because as we all know they are the hardest workers out there and don't waste time lying on the beach when there is work to be done.

**List of participants were:**

| RACWA | Midwest Aero Club | NAC |
|---|---|---|
| Russell | Denise | Bruce Rowley |
| Craig | Pete | Errol Croft |
| Martin | Peter K | |
| Rob | Peter L | |
| Jim | Carl | |
| Bernie | | |
| Rod | | |
| Tony | | |
| Steve | | |

Only 4 contestants made it to the final count and congratulations to Errol on his second place overall.

The club who took home the win was Midwest on the day based on a score averaging of all pilots who took part with NAC coming in second and Royals third but of course Aviation was the winner on the day and thank you to the Royals for organising a great day out. Thank you to Peter for his hospitality and Jurien Bay for the best weather for flying.

*** *** *** *** *** ***

Boys…..the judge's decision is final!!!
Craig Hensley (left) Club President from Royals and Errol Croft, Club President from Northam Aero Club

Crowd watching with anticipation the "landing on the spot" competition.

*** *** *** *** *** ***

# Clubroom works

Matt Bignell has been busy on improvements to Club rooms.
Matt has sealed in the South wall plate glass window,
and installed a totally new plasterboard interior wall!!
Ashley Smith helped Matt, thanks Ashley.
and Peter Hill has just finished painting their hanywork, thanks Peter.
Big thanks to Matt also.

*** *** *** *** *** ***

**Peter Hill did a fly past of the R.S.L. Memorial service at Mokine Sunday 7th September.**

Each year Air Force Association and R.S.L. Northam hold a memorial service at the site of a wartime fatal crash of an Avro Anson( W2262)which was out of Pearce for Geraldton after performing D/F exercises.
This aircraft crashed and burnt at 11.42 a.m. on 9th September 1942 taking the lives of the four crew on board.
The site on Avro Anson Rd Mokine is approximately 9.5 nm from Northam airfield.
N.A.C. extends respects to extended family and friends of pilot and crew who were:
F/O BIRT, Lynton Vennell Howard 406823
Sgt NIXON Noel Lois 414073
Sgt Hugo Kenneth Colin 415255
Sgt Debenham Geoffrey Lancaster 411295

# The old fella is on his way!!!

# ONLY 63

## Sleeps to go!!

So everyone mark your calendars

Sunday 9th December

## Northam Aero Club Christmas Show

Plans are under way for an expanded Entertainment line up

More details in the next issue of Fly About.

# Quick Quiz

1. What is the most common cause of pilot incapacitation in flight?
2. What is the period of validity for a private pilot medical certificate, if the pilot is under 40 years old at the time of issue?
3. What is the CASA recommended period of time between donating blood and flying an aircraft?
4. How long must a pilot wait after the consumption of an alcoholic beverage before flying an aircraft?

## Last Months Answers

1. What is the most recent edition of Perth WAC 3351?
   Edition 19 is the most recent, what edition do you have???

2. What is one of the HF frequencies you would select if you had the need to use HF radio en-route to Mt Magnet WA?
   One of the HF frequencies you would use is or 3461 or 6565 or 8822

3. What is the normal maximum permissible altitude/flight level for operation of a VFR flight within a 30nm radius of Northam AD?
   The normal maximum permissible altitude/flight level that a VFR flight can operate assuming clearances are obtained is 18,000ft or FL180. Above this is Class A airspace and VFR cannot operate in Class A airspace, you must operate IFR above this level.

4. If you experienced a total communications equipment failure, with the exception of your transponder, what code would you set the transponder to if you were en-route to Albany WA?
   If you experience communications equipment failure you should squawk code 7600 and continue to transmit as normal, prefacing calls with "Transmitting Blind"

# Northam Aero Club

# Bar Roster 2012-2013

***Opening Hours***

***Saturday 5pm - 7pm***

***Sunday 5pm - 7 pm***

| OCTOBER | 2012 |
|---|---|
| 6th -7th | Ashley |
| 13th -14th | Denis |
| 20th 21st | Gren |
| 27th 28th | Dave |
| | |

| JANUARY | 2013 |
|---|---|
| 5th -6th | Crofty |
| 8th -9th | Dave |
| 15th -16th | Gren |
| 22nd -23rd | Peter |
| 29th – 30th | Les |

| NOVEMBER | 2012 |
|---|---|
| 3rd-4th | Crofty |
| 10th -11th | Peter |
| 17th 18th | Les |
| 24th -25th | Matt |

| FEBRUARY | 2013 |
|---|---|
| 2nd-3rd | TBA |
| 9th-10th | TBA |
| 16th-17th | TBA |
| 23rd-24th | TBA |

| DECEMBER | 2012 |
|---|---|
| 1st -2nd | Heather |
| 8th -9th | Ashley |
| 15th -16th | Denis |
| 22nd -23rd | Closed |
| 29th -30th | Closed |

| MARCH | 2013 |
|---|---|
| 2nd – 3rd | TBA |
| 9th – 10th | TBA |
| 16th – 17th | TBA |
| 23rd – 24th | TBA |
| 30th – 31st | TBA |

***If unable to do your rostered days please make arrangements to swap with someone***

***Manager.***

# Welcome New Members

**We are pleased to welcome four (4) new club members this month:**

**Mr Helge Flesland**

**Mr Brett Thomson**

**Mr Stephen Bedells**

**Mr David Watkins**

**Welcome Helge, Brett, Stephen and David, We hope you enjoy your time as members and make many friends, have many fun times and enjoy the endless fellowship on offer to our members.**

## *Circuits and Bumps*

Well….who are the heroes and/or the villains of the fables below?
If you have any goss that you can contribute drop me a line at nac.editor@yahoo.com

- **Jaz's hangar near completion….**
- **New hangar on back row fitted with new see-thru easy access doors…**
- **Dick's hangar will also be fitted with doors, soon…**
- **New signage on airfield, should read 'plain taxiway', or "Camels crossing"…**
- **White and blue Mooney off to the races, covered with tatts and graffs, will need new paint job on return…**

**NEXT CLUB COMPETITION**

11th November

## *Fly in to Murray Field*

**NEXT CLUB MEETING**

A change of date for the Committee Meeting for NAC,
Next Meeting is going to be held on the Sunday afternoon at 3.00pm
at the Clubrooms, 11th November 2012.

**BAR ROSTER**

Opening hours
Saturday 5pm – 7pm
Sunday 5pm – 7pm

| OCTOBER | 2012 |
|---|---|
| 20th 21st | Gren |
| 27th 28th | Dave |
| **NOVEMBER** | **2012** |
| 3rd-4th | Crofty |
| 10th -11th | Peter |
| 17th 18th | Les |

Well! Sometimes one just has to do it!!!

**Please make arrangements to swap**

**with someone if you are not available**

**on your rostered day(s)**

FOR MORE INFORMATION THE AERO CLUB CONTACTS ARE;

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